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AUTHOR Hassett, Irene D.; Gurian, Anita
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ABSTRACT

The learning disabilities literature of the past 15 years pertaining to sex differences is reviewed, including prevalence in children, socialization effects, physiological vulnerability, family patterns, differing expectations of parents and teachers, and differing patterns of response to failure. Analysis of data obtained over the last 2 years on 210 boys and 210 girls aged 5 to 18 shows the learning disabilities characteristics of both boys and girls to be clinically similar, but more girls (56%) than boys (39%) were below grade level in basic skills, particularly comprehension (35% compared to 17%). However, a considerably larger percentage of boys (53%) than girls (33%) were receiving services in their schools. More girls (78%) than boys (48%) showed personality styles characterized by constriction, separation anxiety, passivity, and withdrawal, while more boys (45%) than girls (18%) were described as being impulsive, aggressive, belligerent, defiant, and oppositional. The survey results underline the importance of distinguishing, insofar as is possible, a psychoneurologically-based learning disability from a general pattern of passivity, helplessness, and lack of achievement motivation, or combination. Increased concern regarding learning problems and achievment for girls has paralleled social changes. Girls in need of evaluation and help with learning problems are being identified at an increasing rate. Although learning-disabled girls may be fewer in number, it is suggested that their access to services should be equal. (Author/CL)

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The Learning-Disabled Girl: A Profile

Irene D. Hassett, Ph. D
Anita Gurian, Ph. D.

Division of Child Development
Schneider Children's Hospital
Long Island Jewish-Hillside Medical Center
New Hyde Park, New York 11042

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Abstract

The Learning-Disabled Girl: A Profile

Learning disabilities literature of the past 15 years pertaining to sex differences is reviewed, including prevalence in children, socialization effects, physiological vulnerability, family patterns, differing expectations of parents and teachers, and differing patterns of response to failure. An incidence of 5 males to 1 female is consistently reported. In the approximately 6,000 cases of children aged 5 through 21 evaluated over the last decade in the Division of Child Development of Long Island Jewish-Hillside Medical Center, New Hyde Park, New York, this ratio was substantiated. However, in the past two years the proportion has shifted to 3 1/2 to 1. Comprehensive evaluation is rendered by a multi-disciplinary team including social workers, psychologists, learning disabilities and language specialists, child psychiatrist and pediatric neurologist.

Analysis of data obtained over the last two years on 210 boys and 210 girls aged 5 to 18 shows the learning disabilities characteristics of both boys and girls to be clinically similar, but more girls (56%) than boys (39%) were below grade level in basic skills, particularly comprehension (35% compared to 17%). However, a considerably larger percentage of boys (53%) than girls (33%) were receiving services in their schools. More girls (78%) than boys (48%) showed personality styles characterized by constriction, separation anxiety, passivity, and withdrawal than boys, while more boys (45%) than girls (18%) were described as being impulsive, aggressive, belligerent, defiant, and oppositional.

The present survey underlines the importance of distinguishing, insofar as is possible, a psychoneurologically-based learning disability from a generalized pattern of passivity, helplessness, and lack of achievement motivation, or combination. Increased concern regarding learning problems and achievement for girls has paralleled social changes. Girls in need of evaluation and help with learning problems are being identified at an increasing rate. Although learning-disabled girls may be fewer in number, their access to services should be equal.

This retrospective survey originated in the Division of Child Development of the Schneider Children's Hospital, Long Island-Jewish Medical Center, a large teaching hospital in the metropolitan New York area.

Of the approximately 600 children per year referred for evaluation of learning problems, there were until recently five times as many boys as girls. Because the number of girls referred for evaluation has been increasing over the past three years, several questions were raised as to the possible causes for this shift as well as to the nature of the problems presented by the girls. These questions led to the decision to examine the data obtained on the girls evaluated during the past thirty months and compare them to a similar sample of boys.

In the literature search on differences in childhood psychopathology in general it became evident that gender differences per se have not been the primary focus of research. However, the literature does show a greater incidence of boys in a number of categories of pathology. Among them are: adjustment reaction of childhood,. psychosexual disorders, antisocial behaviors, neuroses, psychoses, and learning difficulties (Eme, 1979). Boys of all ages are more likely to be evaluated or treated for learning disorders, a finding which is uniform across all ages after school entry and across etiological categories (Mumpower, 1970).

The literature on gender differences in children with learning disorders focuses on two aspects of the problem: prevalence and possible reasons for the observed differences.

Prevalence

1) Boys predominate in disorders that involve a specific delays in speech and language and motor coordination development.

2) As early as pre-kindergarten, boys have been shown to be more active than girls (Goggin, 1974).

3) By first grade boys are referred for help eleven times as often as girls for reasons such as absenteeism, fatigue, poor concentration, poor motivation, infantile speech, difficulties in visual-motor integration and

visual perception, inability to follow directions, slow learning (Anthony, 1970). Between the ages of seven and fourteen, academic difficulty, including dyslexia, is the reason for referral of at least 75% of all the children, a large percentage of whom are male (Anastas and Reinherz, 1984; Cantwell, 1977, Caplan, 1977; Kessler, 1966, Maccoby and Jacklin, 1974; Rutter and Yule, 1977). It is not surprising therefore that there is a preponderance of boys in learning disabilities classrooms (Norman and Zigmond, 1980).

Researchers who have investigated reasons for referral suggest that disruptive behavior rather than learning difficulties per se are often the referral reason. In a study of 140 elementary school teachers, Gregory (1977) found teachers more likely to refer boys for help even when girls had identical problems; there are numerous studies that show that teachers are less tolerant of boys' behavior (Block, 1976; Phipps, 1982; Serbin, 1975). Management and behavioral issues may supersede academic concerns (Phipps, 1982; Ysseldyke et al, 1982). The question that follows is whether girls with learning problems may be excluded from special services because they are more compliant and more manageable than boys. It is critical not to confuse differences in referrals with differences in actual problems and actual needs.

Observed gender differences

In regard to predisposition to learning disabilities the literature covers four areas:

1) Physiological vulnerability. Despite the fact that males are larger and stronger than females at every age, they are more vulnerable to physical hazards. Males suffer more abortions, stillbirths, miscarriages, prematurity, anoxia, and birth defects. During infancy 37% more males die, and throughout life males are more afflicted by the major diseases (Birns, 1976; Garai and Scheinfeld, 1968; Maccoby and Jacklin, 1974). Infant boys are more vulnerable to those particular pre-, peri-, and post-natal stresses that may result in brain dysfunction and subsequently to learning disabilities (Rourke, 1975). Differences in the rate of maturation have been identified; male children are said to develop more slowly intellectually and physically (Gove and Herb, 1974).

2) Hemispheric functioning. Differences have been examined by a number of researchers, and there are currently differing opinions as to brain lateralization and its relationship to male/spatial and female/verbal differences. Hier (1978) states that males show strong left hemisphere specialization for spatial processing whereas females show greater bihemispheric participation in both verbal and spatial processing. The implications, according to Hier, are that males have lower verbal ability than females, higher spatial ability, and reduced potential for shifting language function after an injury, which he believes may explain the excess of language disorders and dyslexia in boys.

Whatever the origin, boys and girls have been found to differ in verbal ability, spatial perception, and mathematical ability (Maccoby and Jacklin, 1974). Female superiority on verbal tasks emerges early. By eighteen months girls speak more and remain ahead on tests of articulation until age eight (Hier, 1978). They have better readiness skills and remain ahead in reading through grade school (Gates, 1961). Differences, however, disappear in high school. Before twelve, no differences in spatial ability appear, but after twelve, males are superior (Hier, 1978).

3) Family patterns. Research (Decker and De Fries, 1980), shows that brothers of reading-disabled children are more affected than sisters. Several types of IQ testing differences were found, with siblings and parents of learning-disabled children showing coding/speed deficits. Male siblings were higher on spatial reasoning than females but lower on coding/speed. The pattern of low verbal/high performance on IQ testing has been shown to be associated with the familial type of reading disorder (Owen, 1978).

X-linked genetic mechanisms and hormonal effects have been thought to account for cognitive differences, and the male maturational lag has been thought to be due indirectly to the action of the genes on the Y chromosome (Tanner, 1970). This argument, however, according to Anastas (1984) is applicable to severe deficits in functioning rather than to variation in normal populations.

4) Aggressivity. Whether aggressivity in males is innate or not is a subject of controversy. Differential socialization phenomena such as learned fear of aggression in girls and adult reinforcement of aggression in boys are significant contributants to the higher incidence of aggressivity in males.

According to Maccoby and Jacklin (1974) the effects of socialization are important,but not a sufficient explanation. In their view aggression has a biological component as well, which stems not only from the obvious greater mesomorphy of the male but also from the effects of male hormones.But, they state, differences are overshadowed by a wide overlapping of distributions, and in fact they found that there were far more differences among boys as a group than there were between boys and girls. What is of importance is that aggression, whatever its source, is often a reason why males have learning problems in settings where compliant behavior is considered more appropriate to learning and concentration.

In summary, data yielded by research on the possible physiological bases for gender differences in learning indicate that males are more vulnerable and that they mature at a different rate than females. Issues still under dispute are:

1) Aggression: is it the result of biological or socialization factors, or an interaction of both?

2) Brain lateralization: are male superior spatial abilities and female superior verbal abilities physiologically or socially determined or an interaction of both?

The data available at present do not enable us to determine if physiological differences alone are sufficient to account for the high incidence of learning problems in boys.

Socialization effects

Opinions on which gender differences are due to the socialization process show a wide range. The most prevalent position is an interactionist one which asserts that although biology and the environment are important, it is the interaction that matters most significantly (Birns, 1976).

Gender differences in socialization that impact on learning exist even before a child is born; there is a preference for male children throughout the world (Hoffman, 1977). Despite evidence to the contrary, girls are thought to be more delicate; parents play more rough games with boys, encourage them to move about and to explore. It has been well documented that toys, games, and literature provide differing socialization experiences in that girls are given toys that reflect the mother/housekeeper role while boys' toys reflect the world of work. Children's literature generally portrays mothers staying home while fathers are actively out in the world. Boys' games involve more spatial exploration; girls' games are confining.(Lever, 1974; Weitzman, 1972). These differing experiences are thought to contribute to boys' facility in spatial and math concepts.

Several writers believe that in some ways males are under greater social pressure than girls (Bardwick, 1971; Gove and Herb, 1974, Rutter, 1979). The boy who is passive, withdrawn and dependent is under censure; the message given to boys is to be active and aggressive, while at the same time these very actions may result in punishment.

Expectations for achievement are different for boys and girls (Hoffman, 1977). Parental interaction with sons emphasize achievement and competition more than interactions with girls. They are also more likely to want sons to be hardworking and ambitious and are more disappointed if they do not achieve their academic and vocational goals. Differing socialization experiences train boys to be independent, to persist in the face of failure and to internalize standards for excellence that make them less dependent on outside evaluation. On the other hand, girls have more pronounced affiliative needs which influence their

behavior. They have less confidence in their ability to perform and are more compliant, seeking the help and reassurance of others. Hoffman (1972) states that when sexes are compared on desire for achievement they are not different, but when they are compared on sustained, anxiety-free, goal-directed behavior, the differences favor boys.

In numerous studies dealing with learned helplessness, Dweck et al (1978) have found that girls are more likely than boys to show a helpless pattern of attributions and are more apt to blame their own lack of ability for poor performance. Dweck et al also point out that girls show greater helplessness than boys when feedback comes from adults, particularly female adults, such as teachers. Caplan and Kinsbourne (1974) point out that failing girls try to please their teachers by good behavior, a so-called feminine attribute.

Based on issues highlighted in the research described above, effective diagnostic and treatment strategies for girls with learning problems should consider the following:

1) If a girl is in fact learning disabled, does the pattern of her learning disability differ from that of boys?

2) Could a reaction of learned helplessness and/or symptoms of depression by the primary cause of her learning problem?

3) Is the girl's behavior compliant and manageable, and is she therefore less likely to be referred for help?

For purposes of discussion in this paper, differentiation will be made between a learning problem and a learning disability, as defined by the National Advisory Committee on Handicapped Children (1968):

> Children with learning disabilities exhibit a disorder in one or m more of the basic psychological processes involved in understanding or using spoken language or written language. These may be manifested in disorders of listening, thinking, talking, reading,

writing, spelling, or arithmetic. They include conditions which have been referred to as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, developmental aphasia, etc. They do not include learning problems which are due primarily to visual, hearing or motor handicaps, to mental retardation, emotional disturbance, or to environmental disadvantage.

Present survey

The children selected had been referred for evaluation of learning problems to the Division of Child Development, L. I. Jewish-Hillside Medical Center. Criteria for inclusion in this survey were:

1) Overall IQ greater than 80
2) Age between 5 and 18
3) No evidence of thought disorder or other serious emotional disturbance.
4) Attendance in public school

210 girls met these criteria. Each had undergone an evaluation rendered by a multi-disciplinary team including psychologists, social workers, learning disabilities and speech and language specialists, child psychiatrists, and pediatric neurologists. Children were drawn mainly from the metropolitan New York area, including suburbs and outlying counties. 210 boys were selected from the same population utilizing the same criteria. The number of boys in each age category were equally matched with the girls. For each child the following data were selected from the application and questionnaire completed by parents and from the extensive test battery conducted by social workers, psychologists, and language and learning disability specialists:

Age, race, parental marital status
Grade and special services provided by school prior to evaluation
Verbal, Performance, and Full Scale IQ scores (WPSSI, WISC-R)
Bender Gestalt Test performance scores
Academic achievement in decoding, reading comprehension, spelling, and arithmetic

The following achievement patterns were examined:

a) Adequate reading, low arithmetic (more than I year below)
b) Adequate arithmetic, low reading
c) Low arithmetic, low reading (too young to measure comp.)
d) Low reading, math, comprehension
e) Low comprehension

The following characteristics of the learning disability were examined:

a) Visual deficit (memory, discrimination, visualspatial orientation, sequencing)
b) Visual-motor integration deficit
c) Language deficit
d) Auditory deficit (memory, discrimination, sequencing)
e) Auditory-visual integration deficit
f) Attention deficit

Characteristics of the personality style

a) Impulsive, aggressive, oppositional, acting-out, low self-esteem
b) Withdrawn, constricted, helpless, dependent, anxious, depressed, low self-esteem
c) Combination of a) and b)

Findings

1. Following are distributions of age, race, parental marital status, and adoptees in survey.

Boys and Girls

Age

Years	5	6	7	8	9	10	11	12	13	14	15	16	17
N = 210	15	32	37	25	29	11	16	11	8	7	10	4	5

Race

	White	Black	Hispanic	Oriental	Indian
Girls	184	18	4	3	1
Boys	200	7	2	0	1

Parental Marital Status	Girls		Boys	
Intact		154		163
Divorced				
Living with mother	27		24	
Living with father	1	28	1	25
Separated				
Living with mother		9		8
Single				
Living with mother	3		7	
(father deceased)				
Living with father	2			
Living with mother (unwed)	5	10	3	10
Foster parents		7		4
Grandparents		2		

Adoptees

Boys	12
Girls	16

2. Learning Disabilities Classifications

	Girls	Boys
Not classified as learning disabled	40	12
Classified as learning disabled	170	198
	210	210

3. Learning Disabilities Characteristics	Girls	Boys
Visual deficit	88	75
Visual-motor integration deficit	77	89
Language deficit	55	57
Auditory deficit	46	35
Auditory-visual integration deficit	37	19
Attention deficit	22	24

Multiple vs. Single Characteristics	Girls	Boys
Single characteristic	82	83
Multiple characteristics	89	98

Most Common Characteristics of Multiple Learning Disabilities

Girls	a.	Visual, visual-motor deficit	20
	b.	Language, auditory-visual integration	12
	c.	Visual-motor, auditory deficit	8
Boys	a.	Visual, visual-motor deficit	23
	b.	Visual-motor, language	17
	c.	Visual-motor, auditory	9

Discussion

Visual, visual-motor integration, and language deficits were the three most often identified single characteristics for both boys and girls. Substantially the same pattern is shown for both boys and girls.

In considering the patterns of multiple learning disabilities characteristics, the a and c combinations are the same for boys

and girls; the b combination differs slightly. For girls the language deficit is combined with an auditory-visual integration deficit; for boys the language deficit is combined with a visual-motor integration deficit. The implications of this difference need further exploration.

Several patterns of learning disabilities that have been shown to exist in other populations do not apply to the sample examined:

Although boys are known to have a significantly higher incidence of language difficulties than girls, this is not reflected in the present sample.

Although it has been found that boys excel in visualspatial abilities, this is not reflected in the present sample

In summary, the patterns of learning disabilities in girls examined in this population do not appear to differ substantially from those of the boys. Generalizations made regarding relative strengths and weaknesses appearing in the general population such as superior visualspatial abilities in boys and superior verbal skills in girls do not apply to the sample studied.

4. Discrepancies between Verbal and Performance Scales of WISC-R

	Girls	Boys
No significant difference	117	127
Significant difference	93	83
Higher Verbal	45	50
Higher Performance	48	33

Discussion

Both girls and boys showed more significant differences between Verbal and Performance Scales than appear in the general population. For girls, an almost equal number show either a higher Verbal or Performance Scale

score; more boys show a higher Performance Scale score. While this suggests that boys may show a tendency towards language problems, this was not born out by examination of the pattern of learning disabilities characteristics.

5. Achievement Patterns

	Girls	Boys
Below in reading comprehension •	41	7
Below in reading, math, and comprehension	33	28
Below in math - reading on grade level	29	28
Below in reading - math on grade level	9	11
Below in reading and math (too young to measure comprehension)	4	7
	116	81

• (at least one year)

Discussion

What is noteworthy about these findings is:

The large number (74 or 35%) of girls as compared to boys (35 or 17%) who show comprehension difficulties. While 33 of the girls comprehension difficulties may be related to problems in the mechanical or decoding aspects of reading, 41 were comprehension only difficulties, a problem often related to emotional factors when basic skills are intact.

Approximately equal numbers of girls and boys show math difficulties although reading is on grade level. This result is not consistent with research which shows that boys are more proficient in math. It also relates to previous discussion on whether math/spatial skills are due to differences in brain function in boys.

A larger number of boys were on grade level in all subjects than girls, (39% compared to 56%), a fact which may be related to the fact that the boys generally received more assistance in school, as is shown in the following table. It has also been stated that girls' learning problems are more severe than those of boys before they are recognized (Gregory, 1977).

6. Special Services in School Prior to Evaluation in Div. of Ch. Dev.

	Girls	Boys
Self-contained class	13	28
Resource room, regular class	30	37
Remedial reading	8	15
Remedial math	3	16
Speech and language therapy	3	9
Gifted Class	1	
	58	105
Previously retained	10	15

Discussion

What is striking about these findings is that only 57 of the 171 girls, or 33%, of the girls diagnosed as having a learning disability were receiving services in their schools.

105 of the 198 boys, or 53%, of the boys diagnosed as having a learning disability were receiving services in their schools.

The finding that only 1/3 of the girls were receiving services in their schools is consistent with the Anastas and Reinherz (1984) finding that girls who lagged in achievement received, on the average, very little special educational help, and with reports that boys are assigned a higher priority in referrals for help.

7. Personality Style	Girls	Boys
Described as having one or more of the following: Constriction, separation anxiety, passivity, fearfulness, helplessness, withdrawal, depression, low self-esteem	156	98

Described as having one or more of the following impulsivity, aggressivity, belligerence, oppositionalism, defiance, acting-out behavior, low self-esteem	36	91
Combination of both	8	13
No emotional problems	12	8

Discussion

This pattern suggests that a larger number of girls (156 or 78% than boys (98 or 48%) referred for learning problems deal with them by withdrawing, becoming passive, anxious, feeling powerless. It is also important to note that both the overly aggressive boy and the passive boy draw attention to themselves and are perceived to be in need of help. The passive girl, on the other hand, may be favorable viewed.

Referring back to #2 above, a larger number of girls (41 or 19%) than boys (12 or 6%) who were referred for learning problems were not diagnosed as learning-disabled. The learning problems of this group of children were felt to be related to emotional problems and a manifestation of more global feelings of helplessness and depression.

Comments

In summary, the learning disabilities characteristics of the boys and girls reviewed in this survey were clinically similar, but more girls (56%) than boys (39%) were below grade level in basic skills, particularly comprehension (35% compared to 17%). A considerably larger percentage of boys (53%) than girls (33%) were receiving services in their schools. More girls (78%) than boys (48%) showed emotional styles characterized by construction, separation anxiety, passivity, fearfulness, and withdrawal than boys, while more boys (45%) than girls (18%) were described as being impulsive, aggressive, belligerent, defiant, and oppositional. The behavioral patterns of the boys were obviously more likely to result in a higher rate of referral.

As a result of the evaluations performed in the Division of Child Development, Schneide Children's Hospital, Long Island Jewish-Hillside Medical Center and reviewed in this survey, a large number of children were helped to receive educational services previously not made available to them in their schools. In many cases, family and/or individual counseling or psychotherapy was recommended. Since the majority of girls were between the ages of six and nine, the educational and counseling services they now receive may well represent a turning point in their academic, social, and emotional lives and will enable them to cope with age-appropriate developmental tasks -- mastering learning and establishing peer relationships.

The present survey also underlines the importance of distinguishing, insofar as is possible, a psychoneurologically-based learning disability from a generalized pattern of passivity, helplessness, and lack of achievement motivation, or combination. As children grow older, academic success depends on both cognitive and emotional autonomy; learning involves risk-taking, exploration, independent thinking, self-confidence, and an active approach to problem-solving.

Increased concern regarding learning problems and achievement for girls has paralleled social changes. Girls in need of evaluation and help with learning problems are being identified at an increasing rate. Although learning-disabled girls may be fewer in number, their access to services should be equal.

While we have discussed the results of our survey in only one segment of the population, it is our hope that we have raised questions whose answers will be sought by parents, psychologists, educators, pediatricians, and all those working with children.

References

Anastas, J. and Reinherz, H. Gender differences in learning and adjustment problems in school: results of a longitudinal study. American Journal of Orthopsychiatry. 54 (1) January, 1984.

Anthony, E. J. Behavior disorders. In P. Mussen (Ed.) Carmichael's manual of child psychology. New York: Wiley, 1970.

Bardwick, J. Psychology of women: a study of bio-cultural conflicts. New York: Harper and Row, 1971.

Birns, B. The emergence and socialization of sex differences in the earliest years. Merrill-Palmer Quarterly, 1976, Vol. 22, 229-254.

Block, J. Issues, problems, and pitfalls in assessing sex differences: a critical review of the psychology of sex differences. Merrill-Palmer Quarterly, 1976, 22, 283-308.

Cantwell, D. Hyperkinetic syndrome. In M. Rutter and L. Hersov (Eds.) Child Psychiatry. Oxford, England: Blackwell Scientific, 1977.

Caplan, P. and Kinsbourne, M. Sex differences in response to school failure, Journal of Learning Disabilities. Vol. 7 (4), April, 1974.

Caplan, P. Sex, age, behavior, and school subject as determinants of report of learning problems, Journal of Learning Disabilities. Vol. 10 (5), 1977, 314-316.

Decker, S. and De Fries, J. Cognitive abilities in families with reading disabled children. Journal of Learning Disabilities. Vol. 13 (9), November, 1980.

Dweck, C. and Goetz, T. Attributions and learned helplessness, in J. Harvey, W. Ickes, and R. Kidd (Eds.) New Direction in Attribution Research. Vol. II, Hillsdale, New Jersey: Lawrence Erlbaum Inc. 1978.

Eme, R. Sex differences in childhood psychopathology: a review. Psychological Bulletin, 1979, Vol. 86 (3), 574-595.

Garai, J. and Scheinfeld, S. Sex differences in mental and behavioral traits. Genetic Psychology Monographs. 1968, (77) 169-299.

Gates, A. Sex differences in reading ability. Elementary School Journal. 61:431-434.

Goggin, J. Sex differences in the activity level of preschool children as a possible precursor of hyperactivity. Journal of Genetic Psychology. 1975, 127, 75-81.

Gove, W. and Herb, T. Stress and mental illness among the young: a comparison of the sexes. Social Forces. 1974, 53, 256-265.

Gregory, M. K. Sex bias in school referrals, Journal of School Psychology. Vol. 15, (1), 1977.

Hier, D. Sex differences in hemispheric specialization: hypothesis for the excess of dyslexia in boys. Bulletin of the Orton Society. May, 1978.

Hoffman, L. Early childhood experiences and women's achievement motives. Journal of Social Issues. 1972, 28, 129-155.

Hoffman, L. Changes in family roles, socialization, and sex differences. American Psychologist. August, 1977, 644-657.

Kessler, J. Psychopathology of childhood. Englewood Cliffs, New Jersey: Prentice-Hall, 1966.

Lever, J. Games children play: sex differences and the development of role skills, Ph. D. Dissertation, Department of Sociology, Yale U., 1974.

Maccoby, E. and Jacklin, C. The psychology of sex differences. Stanford, California: Stanford University Press, 1974.

Mumpower, D. Sex ratios found in various types of referred exceptional children. Exceptional Child. 1970, 36:621-623.

Norman, D. and Zigmond, N. Characteristics of children labeled and served as learning disabled in school systems affiliated with Child Service Demonstration Centers. Journal of Learning Disabilities. 1980, (13), 542-547.

Owen, F. Dyslexia - genetic aspects. In A. Benton and D. Pearl (Eds.) Dyslexia: an appraisal of current knowledge. New York: Oxford University Press, 1978.

Phipps, Patricia. The learning disabled learner is often a boy - why? Academic Therapy. 17:4, March, 1982, 425-430.

Rourke, B. Brain-behavior relationships in children with learning disabilities: a research program. American Psychologist. 1975, 30, 911-920.

Rutter, M. Individual differences. In M. Rutter and L. Hersov (Eds.), Child psychiatry. Oxford, England: Blackwell Scientific, 1977.

Rutter, M. and Yule, W. Reading difficulties. In M. Rutter and L. Hersov (Eds.) Child psychiatry. Oxford, England: Blackwell Scientific, 1977.

Serbin, L. and O'Leary, D. How nursery schools teach girls to shut up. Psychology Today. December, 1975, 57-58.

Tanner, J. Physical growth. In P. Mussen (Ed.) Carmichael's manual of child psychology. Vol. I. New York: Wiley, 1970.

U. S. Senate. Children with learning disabilities act of 1969. Bill S. 1190, 91st Congress.

Weitzman, L. Sex-role socialization in picture books for preschool children. American Journal of Sociology. 1972. 77. 1125-1150. Exceptional Children. Vol. 48 (6) 1982, 51-54.

Ysseldyke, J. Algozzine, B. and Richey, L. Which children are handicapped? Exceptional Children. Vol. 48 (6), 1982, 51-54.

Owen, F. Dyslexia - genetic aspects. In A. Benton and D. Pearl (Eds.)Dyslexia: an appraisal of current knowledge. New York: Oxford University Press, 1978.

Phipps, Patricia. The learning disabled learner is often a boy - why?Academic Therapy, 17:4, March, 1982, 425-430.

Rourke, B. Brain-behavior relationships in children with learning disabilities: a research program. American Psychologist, 1975, 30, 911-920.

Rutter, M. Individual differences. In M. Rutter and L. Hersov (Eds.),Child psychiatry. Oxford, England: Blackwell Scientific, 1977.

Rutter, M. and Yule, W. Reading difficulties. In M. Rutter and L. Hersov (Eds.) Child psychiatry. Oxford, England: Blackwell Scientific, 1977.

Serbin, L. and O'Leary, D. How nursery schools teach girls to shut up. Psychology Today, December, 1975, 57-58.

Tanner, J. Physical growth. In P. Mussen (Ed.) Carmichael's manual of child psychology. Vol. 1. New York: Wiley, 1970.

U. S. Senate. Children with learning disabilities act of 1969. Bill S. 1190, 91st Congress.

Weitzman, L. Sex-role socialization in picture books for preschool children. American Journal of Sociology, 1972, 77, 1125-1150.Exceptional Children, Vol. 48 (6) 1982, 51-54.

Ysseldyke, J. Algozzine, B. and Richey, L. Which children are handicapped?Exceptional Children, Vol. 48 (6), 1982, 51-54.